

Some further records from Barotseland

by C. W. BENSON

On the tour referred to in the immediately preceding paper, an immature female of *Falco tinnunculus rupicolus* Daudin and a female of *Merops (Melittophagus) variegatus bangweoloensis* (Grant) were also obtained on the Matabele Plain. The latter was only noticed in reeds fringing a pan of permanent water on the plain. It was also collected, and recorded as common, in a permanently moist, spongy dambo seven miles north-east of Mongu.

In Acacia woodland immediately to the south of the Matabele Plain, *Tockus flavirostris leucomelas* (Lichtenstein) and two specimens of *Lybius (Tricholaema) leucomelas centralis* (Roberts) were collected. But in *Brachystegia* woodland 10 miles north of Senanga only *L. l. frontatus* (Cabanis) was seen and collected. The ranges of the two forms thus approach one another to within little over 30 miles, and they hybridise at Livingstone (Benson & White, 1960: 197.) Three specimens of *Tockus p. pallidirostris* (Finsch & Hartlaub) were also collected in *Brachystegia* 10 miles north of Senanga.

Other interesting specimens collected, by R. C. Hart at Kalabo District Headquarters, are *Mesopicos griseocephalus ruwenzori* Sharpe (in riparian forest by the Luanginga River), *Cisticola brunescens cinnamomea* Reichenow, and *Ortygospiza l. locustella* (Neave). The latter two have also recently been collected by C. J. Vernon at Lusaka.

Reference:

Benson, C. W. and White, C. M. N. 1960. Discontinuous distributions (Aves). *Proc. First Fed. Sci. Congr.*, Salisbury: 195-216.

A case of spontaneous rupture of the left auricle in a Great Crested Grebe and two other species of birds

by JAMES M. HARRISON

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On 19th April, 1963 an adult Great Crested Grebe (*Podiceps cristatus cristatus* Linnaeus) was found dead on a ballast water in Sevenoaks. It was in excellent general condition, was in breeding plumage and showed no evidence of disease nor injury.

On dissection the bird was found to be in good condition and to show no evidence of wasting. The ovary and oviduct were quiescent and the appearances did not suggest that the bird would have bred this year.

The most striking post-mortem finding was that both jugular venous systems were grossly engorged and that the heart lay bathed in a pool of dark blood and blood clot. It was found that there was a large rupture of the left auricle, which was, of course, the immediate cause of death.

Since it has been established that this species has more than once succumbed to the effects of toxic chemicals, the cadaver was sent to the Crop Pests Laboratory, Cambridge, for investigation as to the presence of residues.

The analyses were carried out by Mr. Colin Walter to whom I am indebted for figures relating to these and relevant comments.

The most significant finding was that of a dieldrin residue which it was estimated was in the region of 3.5 p.p.m. This estimation took into account the fact that not all the residue was recovered by the technique used, and that the figures quoted are minimal. It is stated that the maximum dietary level for Quail chicks permitting survival is 1 p.p.m. (De Witt). In so far as the analytical findings are concerned, Mr. Walker comments that the figure is to be regarded with some suspicion particularly as it was obtained from the analysis of breast muscle which "is not a tissue where one usually gets a marked accumulation of these residues (c/f. with liver and fat)". The percentages in other tissues from the specimen are being analysed later. Mr. Walker says (*in litt.* 13. xii. 63) "we have now done a paper chromatographic analysis of the liver—with the following result:—

Dieldrin	1.3 p.p.m.
pp ¹ —DDE	1.9 p.p.m.
ppt ¹ —DDT	a trace

The clean up of liver extracts is rather difficult, and this causes low recoveries of pesticide. The above figures are consequently minimal. We did not find sufficient fat for analysis".

In so far as the pathology is concerned he adds "Your observation on the rupture of the left auricle is interesting, since dieldrin has a very marked effect on the nervous system in birds and mammals, causing muscular convulsions, vomiting, etc. Unfortunately it is not possible to state what residue level in a grebe would indicate that these had appeared as a consequence of the action of dieldrin. We have analysed three other Great Crested Grebes, and all have had residues similar in quantity and kind to your specimen in the breast muscle". The other residue D.D.E., a metabolite of D.D.T., was not regarded as of significance.

Discussion: From the foregoing it is evident that toxic chemicals may have a bearing on the unusual cardio-vascular episode described above, particularly in so far as the toxic manifestations in life are such as would favour venous engorgement and an increase in vascular pressures.

The writer has come across three other instances of this pathology over the years. One was in a male Chaffinch, *Fringilla coelebs* Linnaeus, the second occurred in a Fischer's Love Bird, *Agapornis fischeri* Reichenow, which was seen to drop dead from its perch, while the third was a duck Mandarin *Aix galericulata* (Linnaeus) which was seen by Dr. Jeffery Harrison to die in a convulsive seizure on the water. In all three cases the left auricle had given way. Unfortunately investigations with regard to toxic chemicals were not carried out.

This type of fatal cardiac seizure does not seem to have been recorded previously, and although the connection of this with poisoning by toxic chemicals has not been clearly established by chemical analysis, the observation of a fatal convulsive attack in a Mandarin Duck is clinically most suggestive, particularly in view of the fact that dieldrin is recognised as having a very marked effect on the nervous system in birds and mammals causing muscular convulsions, vomiting, etc. (*vide* Colin Walker, *in litt.* 16. vii. 63).

My thanks are due to Dr. Jeffery Harrison for his co-operation, to Dr.

Norman Moore and Mr. Colin Walker of Nature Conservancy for the investigation of the Great Crested Grebe with regard to the presence of toxic chemical residues.

Reference:

De Witt, James B., 1956. Oct. *Journ. of Agric. and Food Chemistry*. IV., No. 10., 863-866; 672-676.

On the original description of *Passer iagoensis motitensis* Smith

by P. A. CLANCEY

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It is generally agreed among systematists that Dr. Andrew Smith first described the southern race of the Great Sparrow *Passer iagoensis motitensis* Smith in his *Illustr. Zool. South Africa*, Aves, 1848, pl. cxiv, and this reference was used by Macdonald, *Contr. Ornith. West. South Africa*, 1957, pp. 156, 157, when he argued in favour of restricting the type-locality to near Hopetown, in the Cape Province to the south of the Orange River at 29° 37' S., 24° 05' E. Moreau, in Peters' *Check-List Birds of the World*, vol. xv, 1962, pp. 15, 16, uses the same 1848 reference and adopts Macdonald's restriction of the type-locality, as do Mackworth-Praed and Grant, *Birds Southern Third of Africa*, vol. ii, p. 55 (not type-locality restriction), and Clancey, *Durban Mus. Novit.*, vol. vii, 5, 1964, p. 138.

Smith's description of the Great Sparrow in his *Illustrations*, 1848, was not, however, the first naming of this species, which was actually originally described as *Pyrgita Motitensis* Smith, in his *Report Exped. Explor. Cent. Africa*, 1836, p. 50. The actual diagnosis as given leaves no doubt as to the accuracy of this assertion: "Pyrgita Motitensis. Top of head and back of neck grey; eyebrows, sides of neck, and back, chestnut; the interscapulars dashed with dark black-brown; eyeband, chin, and throat, black; cheeks white; breast and belly rusty white. Length 6½ inches. Inhabits the country about Old Latakoo [*i.e.*, near Kuruman, northern Cape Province (P.A.C.)]."

It is difficult to account for the overlooking by workers of this prior description of *P. i. motitensis*, which is earlier than the generally accepted one by some twelve years, because it appears immediately above the description of *Pyrgita diffusa* Smith (= *Passer diffusus* of modern usage), a name in universal use. In his 1848 description Smith stated that he took two specimens of the Great Sparrow sixty miles to the south of the Orange River, but I submit that he was in all probability writing from memory and that some error has occurred, the two birds concerned obviously being the same as those used as the basis for the 1836 description. No later investigator has found the Great Sparrow to the south of the Orange River, and the type-locality deriving from Smith (1848) has long been suspect. The adoption of the earlier description of 1836 with the type-locality of the taxon at Kuruman, within the known range of the species, is eminently more satisfactory from the point of view of distribution.